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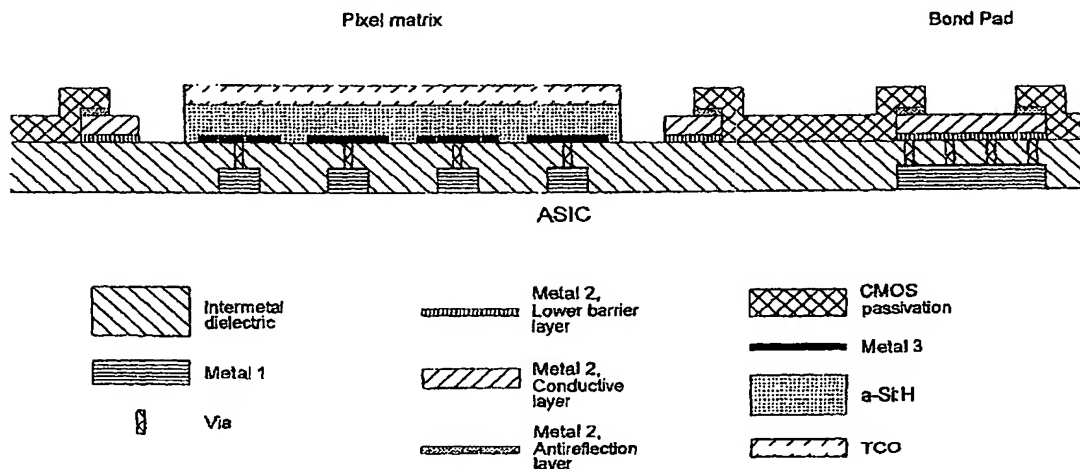
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(54) Title: TFA IMAGE SENSOR WITH STABILITY-OPTIMIZED PHOTODIODE



(57) Abstract: The invention relates to a TFA image sensor with stability-optimized photodiode for converting electromagnetic radiation into an intensity-dependent photocurrent with an intermetal dielectric, on which, in the region of the pixel matrix, a lower barrier layer (metal 2) is situated and a conductive layer (metal 2) is situated on said barrier layer, and vias being provided for the contact connection to the ASIC, said vias in metal contacts on the ASIC. The invention is based on the object of providing a TFA image sensor having improved electrical properties. This is achieved in that an intrinsic absorption layer (i) is provided between the TCO layer and the barrier layer (metal 2) with a layer thickness of between 300 nm and 600 nm. Before the application of the photodiodes, the topmost, comparatively thick metal layer of the ASIC is removed and replaced by a matrix of thin metal electrodes which form the back electrodes of the photodiodes, said matrix being patterned in the pixel raster.



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# INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	WO 02 50921 A (SEIBEL KONSTANTIN ; SILICON VISION AG (DE); RIEVE PETER (DE); WALDE) 27 June 2002 (2002-06-27) page 7, line 25; claims 1-15; figure 2 ---	1-19
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A	EP 0 428 050 A (FUJITSU LTD) 22 May 1991 (1991-05-22) column 5, line 45 -column 6, line 14 --- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>WO 99 00848 A (RIEVE PETER ; BOEHM MARKUS (DE)) 7 January 1999 (1999-01-07) abstract</p>	

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